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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/562,718	06/02/2006	Abbas Razavi	F-873 (31223.00103)	8618
25264	7590	03/02/2007	EXAMINER	
FINA TECHNOLOGY INC			LU, C CAIXIA	
PO BOX 674412			ART UNIT	
HOUSTON, TX 77267-4412			PAPER NUMBER	
			1713	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		03/02/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/562,718

Applicant(s)

RAZAVI, ABBAS

Examiner

Caixia Lu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 12-17 and 22-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shamshoum et al. (US 6,143,683) in view of Kawai et al. (EP 1 138 687).

Shamshoum teaches a process for the preparation of isotactic and syndiotactic polypropylene blend by polymerization propylene in the presence of a catalyst composition prepared by supporting an isotactic metallocene catalyst and a syndiotactic metallocene catalyst on a common support (col. 2, lines 50-59; col. 4, lines 15-29; and Examples 5 and 12). Examples 5 and 12 demonstrate an isotactic and syndiotactic polypropylene blend containing 90% of isotactic polypropylene with $M_w/M_n=160/60=2.7$, Shanshoum's polypropylene blend meets the limitation of the instant claims.

It is noted that Shamshoum does not expressly teach the isotactic metallocene catalyst of the instant claims. However, using a metallocene containing a bridged cyclopentadienyl and fluorenyl ligand to prepare isotactic propylene polymers is conventional in the art and such is disclosed in Kawai (Abstract, [0214]-[0222], and Examples 47-126).

Shamshoum and Kawai are analogous because they both are from the same area of endeavor of metallocene catalyst composition for olefin polymerizations.

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Thus, it would have been obvious to a skilled artisan at the time the invention was made to employ Kawai's isotactic metallocene catalyst to Shamshoum's polymerization process in search a catalyst composition with increased activity and better tailored stereoregularities and in the absence of showing of criticality and unexpected results.

3. Claims 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shamshoum et al. (US 6,143,683) in view of Kawai et al. (EP 1 138 687) and further in view of Demain (WO 00/60148, its US family US 6,646,051 is referred to for convenience hereinafter).

The combined teaching of Shamshoum and Kawai is relied upon as shown above.

It is noted that Shamshoum does not expressly demonstrate the process of extruding fiber from the blend. However, extruding fiber from the isotactic and syndiotactic polypropylene blend is well known in the art and is acknowledged in Shamshoum (col. 2, lines 3-5 and 27-29) and such is also taught in Demain. Therefore, it would have been obvious to a skilled artisan at the time the invention was made to extrude Shamshoum's blend to provide a fiber with improved mechanical properties and in the absence of any showing criticality and unexpected results.

It is also noted that Shamshoum does not expressly teach the preparations of the isotactic and syndiotactic polypropylenes in separate reaction zones and then blending them together to provide the polypropylene blend. However, such a process are conventionally practice in the art in order to better control the properties such as

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molecular weight, molecular distribution and proportion of the individual polymer component in the blend. For example, Demain's isotactic and syndiotactic polypropylenes are prepared separately and then blended together to provide the blend. Therefore, it would have been obvious to a skilled artisan at the time the invention was made to modify Shamshoum's process to prepare the isotactic and syndiotactic polypropylenes in separate reaction zones for the benefits cited above and in the absence of any showing criticality and unexpected results.

Response to Arguments

4. Applicant's arguments with respect to the art rejections of the record have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

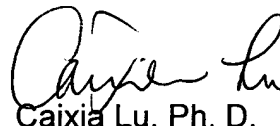
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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Caixia Lu whose telephone number is (571) 272-1106. The examiner can normally be reached from 9:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful and the matter is urgent, the examiner's supervisor, David Wu, can be reached at (571) 272-1114. The fax numbers for the organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-1700.

A handwritten signature in black ink, appearing to read 'Caixia Lu', is positioned above the printed name and title.

Caixia Lu, Ph. D.
Primary Examiner